Environmental Standard Operating Procedure (Approved by Jonathan Aunger)	
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Title: Battery Management

1.0 PURPOSE

The purpose of this Standard Operating Procedure is to provide environmental guidelines for the recharging, replacement, and disposal of communications, electronic, and lead acid batteries.

2.0 APPLICATION

This guidance applies to individuals working with communications, electronic, and lead acid batteries aboard Marine Corps Logistics Base (MCLB) Barstow.

3.0 PROCEDURE

3.1 Discussion:

Batteries may be hazardous to human health and the environment if not properly handled.

3.2 Operational Controls:

Most of the communications, electronic, and lead acid batteries aboard MCLB Barstow are considered maintenance free. A small percentage of the batteries are rechargeable. Additionally, a small percentage of vehicle and equipment batteries require the mixing of sulfuric acid and water (in the battery) prior to being placed on a battery charger.

Regardless of type, all batteries aboard MCLB Barstow must be recycled. Used batteries are to be turned into the Base Environmental Division after being properly packaged for recycling.

The following procedures apply to the recharging, replacement, and disposal of communications, electronic, and lead acid batteries.

1. Communications/Electronic:

a. During charging operations, monitor voltage and heat generation; shutdown all charging when voltage exceeds required level or the battery is excessively hot.

b. Lithium batteries shall be stored in a dry secure well-ventilated area.

c. Lithium batteries must be double wrapped in plastic and taped; then placed in a properly labeled poly container located at a Process Generation Point (PGP) for pick-up by authorized personnel.

d. Unit personnel shall not discharge lithium batteries.

e. Batteries shall be segregated by chemistry (i.e., Li, NiCd, etc.).

f. NiCad batteries should be stored in a secure dry area, away from flammables.

g. Nickel Cadmium batteries must be placed in a properly labeled poly container located at a PGP for pick-up by authorized personnel.

h. Alkaline batteries such as AA or D Cell and 9 Volt batteries must be placed in a properly labeled poly container located at a PGP for pick-up by authorized personnel.

i. Mercury batteries must be placed in a properly labeled poly container located at a PGP for pick-up by authorized personnel.

2. Lead Acid:

a. Add water and sulfuric acid to batteries according to manufacturers' instructions.

b. During charging operations, monitor voltage and heat generation; shutdown all charging when voltage exceeds required level or the battery is excessively hot.

c. Label non leaking lead acid batteries with a "Non-Regulated Waste" label along with the words "Used Battery" and the date taken out of service, in indelible ink, on a piece of tape.

d. All terminals and caps shall be taped to prevent short-circuiting.

e. For batteries that are missing caps, are damaged, or leaking, the batteries must be managed as a hazardous waste and placed in a plastic container/drum, sealed, and labeled with the wording, "Hazardous Waste, Cracked Lead Acid Battery" and the date the battery was placed in the container.

f. Used batteries, cracked batteries, and empty sulfuric acid containers shall be placed at the unit Process Generation Point (PGP) for pick-up by Base Environmental Division personnel.

3. All Batteries:

a. If the unit does not have a designated PGP, contact the Base Environmental Division.

b. Ensure a spill kit with at least two one-pound boxes of baking soda is available for emergencies.

c. If there are any specific situations or other concerns not addressed by this procedure, contact the Base Environmental Division.

3.3 Documentation and Record Keeping:

The following records must be maintained:

1. SDS for batteries.
2. Training and inspection records.

3.4 Training:

All affected personnel must be trained in this Standard Operating Procedure and the following:

1. Hazard Communication training.
2. General Environmental Awareness training

3.5 Emergency Preparedness and Response Procedures:

Refer to MCLB Barstow's Integrated Contingency Management Plan (ICMP).

3.6 Inspection and Corrective Action:

The unit Environmental Compliance Coordinator (ECC) or the Environmental Division shall designate personnel to perform inspections. The ECC or the Environmental Division shall ensure deficiencies noted during the inspections are corrected as soon as possible. Inspections shall be conducted monthly. Actions taken to correct each deficiency shall be recorded on the inspection sheet.

4.0 REFERENCES

- 40 CFR 261, 273
- MCLB Barstow Integrated Contingency Management Plan (ICMP)

Battery Management Inspection Checklist
Date:
Work Center/Location:

Inspection Items	Yes	No	Comments
1. Are lead acid batteries labeled with the date when taken out of service? *(40 CFR 273.15(c), 40 CFR 273.35(c))*			
2. Are lead acid batteries labeled with the words "Used Battery"? *(40 CFR 273.14, 40 CFR 273.34)*			
3. Are lead acid batteries free of leaks and cracks? *(40 CFR 273.13(a)(2), 40 CFR 273.35(a)(2))*			
4. Are cracked or damaged lead acid batteries stored in a plastic container/ poly drum and marked accordingly? *(40 CFR 273.13(a)(1), 40 CFR 273.33(a)(1))*			
5. Are used, cracked or damaged lead acid batteries and empty acid containers stored properly at the PGP site? *(40 CFR 273.13(a)(1), 40 CFR 273.33(a)(1))*			
6. Is baking soda available for emergencies?			
7. Are training records maintained and available for inspection?			
8. Are SDSs available for all batteries being used? *(29 CFR 1910.1200, Appendix E, Section 3)*			
9. Are lithium batteries properly stored in a dry secure area with terminals isolated? *(40 CFR 273.13(a), 40 CFR 273.33(a) 49CFR 173.185*			
10. Are used lithium batteries stored in the PGP in a properly labeled poly container? *(40 CFR 273.13(a)(1), 40 CFR 273.14(a), 40 CFR 273.33(a)(1), 40 CFR 273.34(a))*			
11. Is discharging of lithium batteries by personnel prohibited?			
12. Are nickel cadmium batteries properly stored in a dry secure area, away from flammables? *(40 CFR 273.13(a), 40 CFR 273.33(a))*			
13. Are used nickel cadmium batteries stored in the PGP in a properly labeled poly container? *(40 CFR 273.13(a)(1), 40 CFR 273.14(a), 40 CFR 273.33(a)(1), 40 CFR 273.34(a))*			
14. Are used alkaline batteries stored in the PGP in a properly labeled poly container?			

Inspection Items	Yes	No	Comments
(40 CFR 273.13(a)(1), 40 CFR 273.14(a), 40 CFR 273.33(a)(1), 40 CFR 273.34(a))			
15. Are batteries segregated by chemistry? *Army Technical Bulletin (TB) 43-0134*			

ADDITIONAL COMMENTS:

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Checklist completed by

Name: _____
Signature: _____
Date: _____

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